# SEP 14 1987

GAS & MINING

MINING & RECLAMATION PLAN

U.S. GYPSUM COMPANY

SIGURD, UTAH

JAMES R. JENNINGS

Note: Referenced maps are in the confidential file. FF

FORM MR-1 (Revised November 1984)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
1 Telephone: (801) 538-5340

# NOTICE OF INTENTION TO COMMENCE MINING OPERATIONS and MINING AND RECLAMATION PLAN

Based on Provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, General Rules and Regulations and Rules of Practice and Procedures, By Order of the Board of Oil, Gas and Mining.

Procedures, By Order of the Board of Oil, G	Gas and Mining.
Mine Name: Jumbo - Jensen Quarry	Mine Plan Date:
File No.: ACT/ 041/008	Date Received: 9-14-87
Operator: United States Gypsum Company	
Mineral(s) to be Mined: Gypsum	
Please attach other sheets as needed an numbers when used.	d include cross-reference page
1. Name of Applicant or Company: Unit	ed States Gypsum Company
Subsidiary of USG Corporation (X)  2. Address: Permanent: Corporate - 101	S. Wacker Drive Chicago III 60606
Temporary: Plant - P.O.	BOx 120 Sigurd, UT 84657
3. Company Representative: Name: James	s R. Jennings
Address: P.O. Poy 100 Quar	nny Cunandata I i
4. Location of Operation: County(ies) Township(s): $22 \text{ S.}$ Range(s): $1 \text{ Township(s):}$ Range(s): $1 \text{ Range(s):}$	Sevier  W S.L.M. Section(s): 14, 15, 21, 22, 23  W S.L.M. Section(s): 28, 29, 32, 33  Section(s):
5. Owner(s) of record of the surface area	within the land to be affected:
Name: United States Gypsum Company Addre	ess: 101 S. Wacker Dr. Chicago, ILL 60606
Name: Addre	

	•.		•	
6.	Owner(s) of record of the mi	nerals to be min	ed:	
Nam Nam Nam	e: United States Gypsum Comp e: e:			Chicago, ILL 60600
7.	Owner(s) of record of all ot any part of the land to be a	her minerals, in ffected:	cluding oil and ga	s, within
Nan	e: NONE	Address:		
Nam				
Nan	e:	Address:		·
8.	Have the above owners been n why not? We own it.	otified in writi	ng? ( ) Yes, (X)	No. If no,
9.	Have you or any other person you received an approval of Operations by the State of U herein? ( ) Yes, (X ) No. I surety:	a Nortce of Tute	ntion to Commence	Mining
10.	Source of Operator's legal reland to be covered by this N	ight to enter an otice:	d conduct operatio	ns on the
	Patented Minin	g Claims - Own	er	
11.	Give the names and mailing a Partner (or person performin	ddresses of ever g a similar func	y principal Execut tion) of Applicant	ive, Office,
	Name	Title	Address	
A. B. C. D.	William J. White Vaughn N. Simon Harlan L. Kebel D.T. Rowe	President & C.E Vice PresManu Dir. Mining & E V.P. & Gen. Man Western Divi	facturing " xplor. " ager 620 N. Brand	Blvd Glendale, CA
		PO SCILL DIAL	2 I U[]	9120

12.	Has the Applicant, any subsidiary or offiliate
	Has the Applicant, any subsidiary or affiliate or any person, partnership, association, trust or corporation controlled by or under common control with the Applicant, or any person required to be a subsidiary or under common control.
	with the Applicant or any assessment by of under common control
	ever had an approval of a Notice of Intention to Mine or Explore withdrawn or has surety relating thereto ever been forfoited.
	or has surety relating thereto ever been forfeited? () Yes, (X) No.

If yes, please explain:	

Please note: Section 40-8-13 of the Act provides that information relating to the location, size or nature of the deposit, and marked confidential by the Operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the Operator, or until the mining operation has been terminated as provided in Subsection (2) of Section 40-8-21 of the Act. This material should be so marked and included on separate cross-referenced sheets.

- 13. All maps and plans prepared for submission shall be of adequate scale and detail to show topographic features and clearly indicate the following See confidential file for maps. FF
  - Location and delineation of the extent of the land previously affected, as well as the proposed surface disturbance. B.
  - Existing active or inactive, underground or surface mined areas. Boundaries of surface properties, including ownership. C.
  - Names and locations of: D.
    - (1) Lakes, rivers, streams, creeks and springs. (2)
    - Roads, highways and buildings. (3) Active or abandoned facilities.
    - (4) Transmission lines within 500 feet of the exterior limits of land affected.
    - (5) Gas and/or oil pipelines.
    - (6) Site elevation.
  - Drainage patterns of land affected:
    - (1) Overburden or topsoil removal and storage areas.
    - (2) Areas susceptible to erosion.
    - (3) Natural waterways.
    - (4) Constructed drainages, diversions, berms and sediment ponds (design calculations shall be included).
    - (5) Receiving waters (State Health classification).
  - (6) Directional flow of all surface waters (indicated by arrows). F. Known drill holes:
    - (1) Location.
    - (2) Status.

FORM MR-1 Page 4 of 13

- (3) Depths and thicknesses of:\*
  - a. Water bearing strata.
  - b. Mineral deposits.
  - c. Toxic or potentially toxic materials.
  - d. Surficial or plant supporting material (topsoil and subsoil).
- G. Locations of disposal and stockpile areas:
  - (1) Topsoil and subsoil storage areas.
  - (2) Overburden storage area.
  - (3) Waste, tailings, rejected materials.
  - (4) Raw ore stockpile(s).
  - (5) Tailings-ponds and other sediment control structures.
  - (6) Discharge points, water effluents (see #15[D]).

All maps should have a color code or other suitable legend used in preparation to clearly indicate surface features of the land affected. A general reference map completed on a 7.5 (1:24,000) USGS quadrangle sheet is recommended with additional large scale maps included for practical delineation of individual facilites, (e.g., 1:200, 1:500).

- 14. Acreage to be disturbed:
  - A. Minesite (operating, storage, disposal areas, etc.): \_\_171.73 acres
  - B. Access/haul roads/conveyors: 67.66 acres
  - C. Associated on-site processing facilities: None
- 15. Describe mining method to be employed, including:
  - A. Mining sequence:
    - (1) Map delineating the yearly sequential disturbance (if surface mine) and/or surficial disturbance.
    - Oppsym bed occurs in ridges with green shale and red clay bed on sides of the gypsym. Stripping and development is performed with a dozer. Rock is drilled and shot on a 20 foot bench system until reaching anhydrite. Gypsym rock is loaded on trucks and hauled 7 miles to the plant for processing.

Attach supplemental sneets and/or diagrams as necessary with cross reference to page number here: 4A-4C.

<sup>\*</sup>Stratigraphic or lithologic logs if correlated to footage depths may be presented when labeled (maps or logs should be labeled confidential, if so desired).

#### DESCRIPTION OF SIGURD PLANT MINING OPERATIONS

The United States Gypsum Company owns and operates many mines and quarries in the U.S. Among these is the Jumbo-Jensen Quarry from which gypsum rock is extracted and supplied to the plant in Sigurd, Utah for manufacturing gypsum products. The company has operated the quarry and plant since 1947.

The gypsum occurs in most areas as a steeply dipping bed in ridges or hills with green shale and red clay on the sides of the bed. All areas are mined as surface quarries with some stripping of the shale and red beds. Most stripping and development is performed with a dozer.

Gypsum rock is drilled with a mobile tank drill and shot using explosives. The rock is loaded onto off-highway trucks with a front-end loader and hauled approximately 7 miles to the plant for processing.

In most areas the gypsum occurs 20 to 100 feet in thickness, mined to a depth from 20 to 60 feet. As indicated by the topography maps, most outcrops occur on the tops of steep ridges. Careful planning and engineering is required in these areas to maximize rock extraction and to maintain safety as a first priority in mining operations.

On pages 4B and 4C are simplified sketches of the mining sequence.

Page 4B UNITED STATES GYPSUM CO. AUTH. NOTES: \_\_\_\_\_CHICAGO, ILL. MINING SEQUENCE DATE 6-3-77 REMOVE ALL BURRS AND UN-DR.D. SWANEY NECESSARY SHARP CORNERS. ck. J. Jennings TRANCES ON MACHINING OPER-SCALE NONE SKETCH NO. ATIONS ARE + OR - .010" UNLESS REVISIONS REVISIONS Checked 6-3-87 J.Z.J. OTHERWISE SPEC-IFIED. DO NOT SCALE DRAWING. UNDEVELOPED DEPOSIT GYPSUM SHALE CLAY ANHYDRITE SHALE 2 CONSTRUCTION OF BENCH FOR MINING G STOCKPILE SHALE PRINT REQ. NO. ISSUED APPROVED

Page 4C UNITED STATES GYPSUM CO. AUTH. NOTES: CHICAGO, ILL.

MINING SEQUENCE DATE 6-3-77 REMOVE ALL BURRS AND UN-DR. D. SWANEY NECESSARY SHARP CORNERS. ck. J. Jennings RANCES ON ISIONS FOR MACHINING OPER-SKETCH NO. SCALE NONE ATIONS ARE + OR - .010" UNLESS REVISIONS REVISIONS OTHERWISE SPEC-J.R.J. Checked 6-3-87 IFIED. DO NOT SCALE DRAWING. 3 ROCK PRODUCTION LOADING AREA RECLAMATION ROCK DEPLETED CLAYESHALE GRADED OVER MINED AREA PRINT REQ. NO. ISSUED APPROVED HUEY REPROGRAPHICS FORM 6506-P 1000H-8 PRINTED IN USA N25368

	В.	If sedimentary deposit seam(s): (1) Thickness(es): Varies: 20 to 100 feet
		varies, but generally along the
	c.	(3) Outcrop: Yes
	٠.	Will any underground workings or aquifers be encountered? () Yes, () No. If yes, describe notential impacts and other transfer of the potential impacts.
		( ) No. If yes, describe potential impacts and protection measures to be taken:
	D.	Describe any active discharge or proposed discharge of water from mine or site area. Include water quality data and lab test reports. If attached sheets or reports are included, cross reference to page number here: None
	=	
16.	Have	all peopsess and the second se
-0.	will wa	all necessary water rights been appropriated? (X) Yes, () No. How water be obtained? Please explain: Water hauled from plant in truck for road dust control.
17.	Prop	Osed or estimated duration of minimum.
	Will	osed or estimated duration of mining operation:  the permit term be for a lesser amount of time, subject to review?
	(e.g	., for surety estimate reasons). (x) Yes, () No. If yes, how long?
18.		ribe the construction and maintenance of access roads including: Procedures (drainage and erosion control methods). Cross section(s).
	C.	Profile(s) of proposed road grade(s).
P	ionee	r road work done with dozer. Finishing work and maintenance done
W.	ith g	rader. Culvert installed when necessary so as not to impede surface water and to control road erosion. Use of water to impede surface
C	unott	water and to control road erosion. Use of water truck for dust
ro	oad p	l. Berms built to meet MSHA requirements. Cross sections and
(	rade	rofile grades vary depending on working area. When possible, road
		S white Top.
	Atta here	ch supplemental diagrams and cross reference to page number  5A
19.	Prio	r land use(s): Limited grazing and wilding
	Curr	ent land use(s):
	Poss	ible projected or prospective fitting and wildlife
		limited grazing and wildlife

			Page 5A
NOTES:	UNITED STATES	GYPSUM CO.	AUTH.
REMOVE ALL	CHICAGO, I	DATE 6-3-77	
BURRS AND UN- NECESSARY SHARP	ROAD CONSTRUCTION		DR.D. SWANEY
ERANCES ON			ck. J. Jennings
MACHINING OPER-	or and the second of the second	SKETCH NO	SCALE NONE
ATIONS ARE + OR 010" UNLESS	REVISIONS	REVISIONS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
OTHERWISE SPEC-		Checked 6-3-87	J. R. J.
SCALE DRAWING.			Topon I Int
	GYPSUM SHALE ANHYDRITE	CUT	ROAD BED (SHALE GRAVEL)
		DDINT	ROA
REQ. NO.	APPROVED	PRINT ISSUED	
	AFFROYED		

20.	Describe methods of tree and brush removal:
	Provide estimate of, and method of obtaining existing vegetation cover (%):  5% on steeper hillsides and south slopes.  10% in lower areas and north slopes.
	What types of dominant vegetation are present?  Big sagebrush, shadscale, rabbit brush, indian rice grass.
	Photographs and/or maps may be attached to these forms, cross reference to page number here:
21.	Soils (surficial plant supportive material) and overburden: Except where slope or rocky terrain make it impossible, all surficial materials suitable as a growth medium shall be removed, segregated and stockpiled according to its ability to support vegetation (as determined by soil analysis and/or practial revegetation experience) prior to any major excavation. (Suggested minimum requirements are the top six inches, or the "A" horizon, whichever is larger.)
	A. What is the pH range of the soil before mining? 8.08 pH (average)  Name of person or agency and method of determining pH: Laural Stott,  U.S. Soil Conservation Service, colormetric method - red pH indicator.  Attach lab report if available. Cross reference page number  here: 6A - 6B .
	B. Average depth of topsoil and subsoil to be stripped and stockpiled:  6 inches average Calculated volume of soil to be stockpiled:  193, 108 yd <sup>3</sup>
	C. Describe the method for removing and stockpiling topsoil and subsoil, including measures to protect topsoil from wind and water erosion, compaction and pollutants:  Doze into pile and put back on at completion of mining.
	Describe the method for removing and stockpiling overburgen.  Describe and discuss the acidity or alkalinity (pH) or other characteristics which would affect revegetation:  Very little overburden exists. Usually consists of gypsite. Overburden pushed off top with dozer and stockpiled for use at completion of mining.

SOIL TESTS MADE FOR U. S. GYPSUM COMPANY

By Laural H. Stott Soil Scientist Area Office, SCS

(pH determined (colormetric method) by creosol red pH indicator. All samples contain moderate amounts of lime):

SAMPLE	рН
1 2	8.0 8.2
3	8.0
4 5	8.0
6	8.0
7	7.8
8	8.5 8.3
10	8.0

Laural H. Stott Soil Scientist

#### EXPLANATION OF pH TESTS

The entire area to be affected is covered by either weathered gypsum or weathered shale (clay). Both of these materials are uniform in pH throughout their thickness, and no real separate soil exists. The natural weathering of the area washes away some of the surface material each year and uncovers more fresh gypsum or shale as the case may be.

A grid pattern was established and samples were taken. The results show almost no variation and all types of cover were encountered. Most samples were of the natural cover of clay. One sample was of subsurface clay, which had been dozed in a pile during development work, and this sample was of the same pH as the surface material. One sample was taken from a hill capped with gypsum which showed a pH of 7.8, the lowest of all samples. There was also a sample taken from a reclaimed area which showed a pH of 8.0, slightly below the average of 8.08. This could be the results of some residule gypsum incorporated with the clay.

The tester for S.C.S. indicated that all soils in the quarry area naturally contain some amounts of lime.

E.	which is to be disposed of on- or off-site must be subjected to a toxicity analysis. The method of determination, results and suitable disposal methods must be explained in detail, including means for containment and long range stability*:
	Rock is non-toxic. Use practically all rock. If not used, rock is put in pits and covered.

- 22. Describe the methods used to minimize public safety and welfare hazards during and after mining operations including:
  - A. Shaft, tunnel and drill hole closure.
  - B. Disposal of trash, scrap metal and wood and extraneous debris, waste oil and solvents, unusable buildings and foundations, sewage and other materials incident to mining.
  - C. Posting of appropriate warning signs and/or fences or berms to act as barriers (e.g., above highwalls) in locations where public access is available.
  - A. No shafts or tunnels. All drill holes plugged a minimum 5 foot depth.
  - B. All trash and debris hauled offsite or buried in pit with a minimum of 2 feet of cover.
  - C. Install berms as barriers above highwalls.

<sup>\*&</sup>quot;Toxic" means any chemical or biological or adverse characteristic of the material involved which could reasonably be expected to negatively affect ecological or hydrological systems or could be hazardous to the public safety and welfare.

23.	Grading	and	soil	redistribution.

Desc and hei	ach pre- and postmining contour cross sections, typical of rading designs. Cross reference to page number here: 8A & 8B cribe the method(s) of overburden replacement and stabilization highwall elimination, including: (a) slope factors; (b) lift ghts; (c) compaction; (d) terracing, etc., (e) also include ting procedures: bulldoze back on or haul and redistribute it.
	method of spreading topsoil and subsoil or upper horizon erial on the regraded area will be employed?  using bulldozer or grader and, if necessary, haulage trucks
	Tiom bollow aleas.
1.	Indicate the approximate depth of soil cover after final
2.	odi, deli de minimo of 17
	What tests will be performed to adequately evaluate the potential of the soil to successfully support intended
	None - knowledge from previous reglaination
	work done.
3.	What soil amendments or fertilizers will be needed as an aid to
	Type:
	Type: Rate: 200 lb/acre @ seeding times Rate:
4.	Type:
	What additional surface preparations will be used? Describe (a) drainage, erosion and sediment control measures; (b) maximum slope characteristics; and (c) highwall reclamation.
	Need to put on 1 to 2 feet of soil that plants will grow on on all areas that don't have suitable soil material. May have to haul in some borrow pit soil. Rip or disc up soil so it is loose, then broadcast seed on it. Then cover seed by harrowing, dragging a chain over it, or by raking it in. Try to cover seed ½ to ½ inch with soil. Late fall is the best time to seed.

			Page 8A
NOTES!	UNITED STATES	AUTH.	
REMOVE ALL	CHICAGO,	- DATE 6-3-77	
BURRS AND UN-	STOCKPILING OF TOPSON	<u>IL</u>	DR.D. SWANEY
TRANCES ON			ck. J. Jennings
MACHINING OPER-		SKETCH NO	_ SCALE NONE
ATIONS ARE + OR 010" UNLESS	REVISIONS	REVISIONS	SERVICE CONTRACTOR
OTHERWISE SPEC-		Checked 6-3-87	9.79.
SCALE DRAWING.			/n
UNDISTURBED	SHALE GYPSUM SHALE SHALE	SITE PREPARATION  STOCKPILE OF  REMOVED MATERIALS	THE THE STATE OF T
0		©	
			Y
REQ. NO.	APPROVED	PRINT ISSUED	
	M 6506-P 1000H-8 PRINTED IN USA N25368		

					Page 8B
T Color	LINI	TED STATES	GYPSUM (	CO.	AUTH.
NOTES:	in the second		DATE 6-3-77		
IRRS AND UN-	FINA	L STABILIZATION &	GRADING		DR. D. SWANEY
DRNERS.					ck. J. Jennings
RANCES ON		To the second second	SKETCH N		THE RESERVE OF THE PARTY OF
ACHINING OPER-			REVISIONS	<u> </u>	SCALENONE
.010" UNLESS THERWISE SPEC-	REVISIONS			ud 6-3-87	92.9
IED. DO NOT					
	CLAY SHALE SHALE ANHYL	DRITE			
REQ. NO.				PRINT ISSUED	

FORM MR-1 Page 9 of 13

5. Describe methods which may be particularly applicable to waste disposal areas determined to be potential problem areas.

None on site

D. Describe plans for either leaving or reclaiming the roads and pads associated with the operation.

Rip with dozer and seed. Install cross drains when necessary.

24. Impoundments: All evaporation, tailings and sediment ponds; spoil piles, fills, pads and regraded areas shall be self-draining and nonimpounding when abandoned unless previously approved as an impounding facility by a lawful state or federal agency. In view of this, please describe the reclamation of all related areas in the operation and include pertinent items enumerated in C, 1-5 above.

All will be self-draining.

# 25. Revegetation plans:

B. Will the affected area be subject to livestock or wildlife grazing?

(X) Yes, () No. Will vegetation protection be needed to allow for a determination of the successful revegetation criteria outlined in the Mined Land Reclamation Act, Rule M-10(12)? () Yes, (X) No. If yes, what measures will the operator take?

Very little livestock use and normal wildlife use.

C.	Will irrigation b	e used? (	) Yes,	( X) No.	Type:	
		For how	long?		.,,,,,	

FORM MR-1 Page 10 of 13

> Test plots initiated during the early stages of mine development D. provide good bases from which a successful revegetation program can be adapted for later implementation. Will test plots be employed? ( ) Yes, (X) No. If yes, describe on an additional sheet(s) and attach. Cross reference page number here and show location on facilities map: Some reclamation has been done for test purposes. Please attach a revegetation plan and schedule including:

Species to be used.

Rate of seed application/acre. 2.

\*See page 10D

3. Season to be planted.

Seedbed preparation techniques. 4.

Planting location, slope face direction, variability, method of application, covering, etc.

Mulch and fertilizer application, if used.

Describe any other maintenance procedures which may be used, if needed, to guarantee successful revegetation:

Will be checked after 3 years.

- 26. Please provide a reclamation schedule including:
  - Estimated time for construction.

B. Estimated time for interim reclamation.

C. Estimated duration of the mining operation.

- A time table for the accomplishment of each major step in the D. reclamation plans. Attach the schedule and cross reference to the page number here: 10A - 10C
- 27. A surety guarantee must be provided for the mining operation (see Rule M-5 Mined Land Reclamation Act). In calculating this amount, the Division will consider the following major steps based on the information provided in this report:
  - Clean up and removal of structures.

Backfilling, grading and contouring. В.

Topsoil and subsoil redistribution and stabilization. C. D.

Revegetation (i.e., preparation, seeding, mulching, irrigation). E.

Labor.

F. Safety and fencing.

Monitoring, and reseeding if necessary.

To assist the Division, the operator may attach a list of costs and factors which would satisfy these areas. Substantiation of these factors, i.e., unit costs and how they are derived, should accompany the list. Cross reference the page number here:

28. A request for a variance from specific commitments to Rule M-10 (Reclamation Standards) of the Mined Land Reclamation Act may be submitted with adequate written justification. If after presentation of information adequately detailing the situation, a determination is made that finds a portion of the rule inapplicable, a variance may be granted by the Division.

neural 1-27-90

\*See page 10E

FORM MR-1 Page 10 of 13

> Test plots initiated during the early stages of mine development D. provide good bases from which a successful revegetation program can be adapted for later implementation. Will test plots be employed? ( ) Yes, (X) No. If yes, describe on an additional sheet(s) and attach. Cross reference page number here and show location on facilities map: Some reclamation has been done for test purposes. Please attach a revegetation plan and schedule including:

2. Rate of seed application/acre.

3. Season to be planted.

Seedbed preparation techniques. Planting location, slope face direction, variability, method of application, covering, etc.

Mulch and fertilizer application, if used.

Describe any other maintenance procedures which may be used, if needed, to guarantee successful revegetation:

Will be checked after 3 years.

- 26. Please provide a reclamation schedule including:
  - Estimated time for construction. A.
  - Estimated time for interim reclamation. B. C.

Estimated duration of the mining operation. D.

- A time table for the accomplishment of each major step in the reclamation plans. Attach the schedule and cross reference to the page number here: 10A - 10E
- 27. A surety guarantee must be provided for the mining operation (see Rule M-5 Mined Land Reclamation Act). In calculating this amount, the Division will consider the following major steps based on the information provided
  - Clean up and removal of structures. A. B.

Backfilling, grading and contouring. C.

Topsoil and subsoil redistribution and stabilization. D. Revegetation (i.e., preparation, seeding, mulching, irrigation).

E.

F. Safety and fencing.

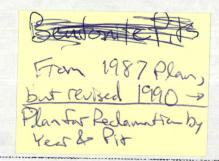
Monitoring, and reseeding if necessary.

To assist the Division, the operator may attach a list of costs and factors which would satisfy these areas. Substantiation of these factors, i.e., unit costs and how they are derived, should accompany the list. Cross reference the page number here:

28. A request for a variance from specific commitments to Rule M-10 (Reclamation Standards) of the Mined Land Reclamation Act may be submitted with adequate written justification. If after presentation of information adequately detailing the situation, a determination is made that finds a portion of the rule inapplicable, a variance may be granted by the

# JENSEN RECLAMATION PLAN

PITS	RESERVES	ACREAGE	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	TOTALC
BOML	314822	9.18						4.6				2.3	2000	2001	2002	2003	2.28	TOTALS
CLAW	201228	6.68								3.34						3.34	2.20	9.18
WISHBONE		10.14					5.07						5.07			3.34		6.68 10.14
OIL WELL		2.4													2.4			2.4
HOGBACK	122413	3.31													3.31			3.31
DOME	117791	4.89									2.44			2.45	0.01			4.89
STADIUM	84733	6.46									3.23					3.23		6.46
LINE	81400	2.53													2.53	0.10		2.53
CENTER 4		4.48							4.48						2.00			4.48
2C-SW	57800	3.05												3.05				3.05
WORM	40183	3.31												3.31				3.31
C3	25900	1.73											1.73					1.73
2-1B	20335	0.73							0.73									0.73
LOU'S	19600	2.53				2.53			*****									
CRESCENT	18000	1.91				1.91												2.53
4-18	15579	1.51															1.51	1.91
F-1	15000	1.21					1.21										1.51	1.51
6B	15000	3.2					1.21											1.21
B3	10000	1.58						2									1.2	1.2
C2	8900	0.55	0.55					4								0	1.58	3.58
3-1B	8000	1.29	V.33			1.29												0.55
4A-NW	7400	2.9			2.9	1.23												1.29
5B	5000	2.68	0		2.68													2.9
6A	5000	0.99	v		2.00					0.99								2.68
CI	5000	1.91								0.33		1.91						0.99
C7	5000	8.45	2.68	5.77														1.91
C5	0	0.99	0	3.77														8.45
84	o	1.58	1.58															0
07	v	1.30	1.00															1.58
	, , , ,	92.17	4.81	5.77	5.58	5.73	6.28	6.6	5.21	4.33	5.67	4.21	6.8	8.81	8.24	6.57	6.57	91.18



Junul -

# JENSEN QUARRY MINING PLAN

PITS	RESERVES A	CREAGE	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	TOTALS
BOWL	314822	9.18	21000	21000	21000	21000	21000	21000	21000	21000	21000	21000	21000	21000	21000	21000	20822	314822
CLAW	201228	6.68	5000	5000	5000	5000	5000	10000	10000	15000	15000	25000	25000	25000	25000	26228		201228
WISHBONE	199096	10.14	22000	22000	22000	22000	22000	22000	22000	22000	22000	1096						199096
OIL WELL	127946	2.4		12000	12000	12000	12000	12000	12000	12000	12000	12000	12000	7946				127946
HOGBACK	122413	3.31		10500	10500	10500	10500	10500	10500	10500	10500	10500	10500	10500	6913			122413
DOME	117791	4.89	10500	10500	10500	10500	10500	10500	10500	10500	10500	10500	10500	2291				117791
STADIUM	84733	6.46					10000	10000	10000	10000	10000	10000	10000	14733				84733
LINE	. 81400	2.53					5000	5000	5000	7500	7500	10000	15000	20000	6400			81400
CENTER 4A	70363	4.48	10000	10000	10000	10000	10000	10000	10363									70363
2C-SW	57800	3.05	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	2800				57800
WORM	40183	3.31				5000	5000	2500	2500	2500	2500	5000	5000	10183				40183
C3	25900	1.73			2500	2500	2500	2500	2500	2500	2500	2500	5900					25900
2-1B	20335	0.73	5000	5000	5000	5335												20335
LOUIS	19600	2.53	5000	5000	5000	4600					,							19600
CRESCENT	18000	1.91	5000	5000	5000	3000												18000
4-18	16579	1.51												5000	5000	5000	1579	16579
F-1	15000	1.21	5000	2500	2500	2500	2500											15000
68	15000	3.2													5000	5000	5000	15000
B3 .	10000	1.58										2500	2500	2500	2500			10000
C2	8900	0.55	8900					·										8900
3-1B	8000	1.29	2000	2000	2000	2000												8000
4A-NW	7400	2.9		5000	2400						,							7400 5500
5B	5000	2.68	5500															5000
6A	5000	0.99	5000									<b>5000</b>						5000
C1	5000	1.91										5000						5500
C7 .	5000	8.45	5500															0
C5	0	0.99	0															. 0
B4	500	1.58	0															
TOTAL YEA	RLY TONS		120400	120500	120400	120935	121000	121000	121363	118500	118500	120096	122400	121953	71813	57228	27401	1603489

Mrs-1

Nevral 1-29-70

### AREAS FOR BOND:

# May, 1975 THROUGH PRESENT AND 5 YEAR PROPOSED AREAS

#### JENSEN CLAIMS:

AREA	ACREAGE	AREA	ACREAGE
В4	1.58	C7	8.45
B3	1.58	Wishbone	10.14
6B	3.20	Stadium	6.46
5B	2.68	4A-NW	2.90
. 6A	0.99	Worm	3.31
lA	1.51	2C-SW	3.05
1B	1.29	Claw	6.68
2-1B	0.73	Hogback	3.31
Fl	1.21	Islands	2.31
B5	1.03	Oil Well	5.40
D1 `	2.31	3 Sisters	6.06
Crescent	1.91	Bowl	9.18
Cl	1.91	Dome	4.89
C2	0.55	Line	2.53
C3	1.73	Center 4A	4.48
C5	0.99	Lou's	2.53
C6	0.66		

Total Jensen Mining Areas = 107.54 acres

Jensen Roads = 36.70 acres

Total Jensen Claims = 144.24 acres

#### JUMBO CLAIMS:

		Total Jumbo Mining Areas	=	3.85
J-25	1.35			
J-2	0.50	Jumbo Roads	=	7.50 acres
North Quarry	2.00			
		Total Jumbo Claims	=	11.35 acres

Jensen Claims = 144.24 acres

Jumbo Claims = 11.35 acres

TOTAL AREA FOR BOND = 155.59 acres

# Proople 1-29-10

#### POST 5 YEAR MINING AREAS

JENSEN CLAIMS:			JUMBO	CLAIMS:	
AREA		ACREAGE	AREA		ACREAGE
Center 3C		1.69	J-4		0.99
Carter Peak  4A - SE		9.73	J-7 J-22		1.36 1.69
Far East		3.97 11.50	J-11		0.89
Zee		5.44	J-12		1.86
West Center 2D		2.39	J-18		1.79
2C - NE		1.80	J-21		2.05
2C - 2A No. 2		3.31	J-23		0.91
2A - SE		2.42	J-24		0.56
2C - 2A No. 1		2.57	J-31		1.48
Eagle		1.40	J-30		0.54
	Total Jensen	46.22		Total Jumbo	14.12

Jensen Claims = 46.22 acres

Jumbo = 14.12 acres

Estimated Roads = 23.46 acres

Total Post 5 Year Areas = 83.80 acres

TOTAL ACREAGE TO BE DISTURBED FOR

JUMBO-JENSEN QUARRY LIFE = 239.39 acres

#### REVEGETATION PLAN

herry 1-79-90

#### Seed mixture:

Rabbitbrush (white stem)	3
Big Sagebrush	3
Shadscale	3
Fourwing Saltbush	3
Indian Ricegrass	4
Crested Wheatgrass	4_
	20 lbs./acre

#### Seedbed Preparation:

Rip or disc soil approximately 6" so it is loose.

#### Seeding:

Use drill or, if drill can't be used, broadcast seed, then harrow or rake in seed  $\frac{1}{4}$ " to  $\frac{1}{2}$  ". (Late fall is preferred time to seed.)

#### Fertilization:

Broadcast fertilization 200 lbs./acre of diammonium phosphate 18-46-0 at the time of seeding.

On May 18, 1987, Frank Jensen, Utah Soils Reclamation Specialist, visited the Jensen Quarry and suggested this revegetation plan.

FORM MR-1 Page 11 of 13

I hereby commit the applicant to comply with Rule M-10, "Reclamation Standards" in its entirety, as adopted by the Board of Oil, Gas and Mining on March 22, 1978.

The applicant will achieve the reclamation standards for the following categories as outlined in Rule M-10 on all areas of land affected by this mine, unless a variance is granted in writing by the Division.

Rule	Category of Commitment	Variance Requested?
M-10(1) M-10(2) M-10(3) M-10(4) M-10(5) M-10(6) M-10(7) M-10(8) M-10(9) M-10(10) M-10(11) M-10(12) M-10(13) M-10(14)	Land Use Public Safety and Welfare Impoundments Slopes Highwalls Toxic Materials Roads and Pads Drainages Structures and Equipment Shafts and Portals Sediment Control Revegetation Dams Soils	See Page 11A "" "" "" "" "" "" "" "" "" "" "" "" ""

I believe a variance is justified on a site-specific basis for the previous subsections of Rule M-10 as indicated. A narrative statement explaining these concerns is attached.

STATE OF	UTAH	
COUNTY OF	SEVIER	
depose and at application a complete and	JAMES R. JENNINGS ttest that all of the representat are true to the best of my knowle file this application on behalf has been executed as required by	edge; that I am authorized to
	Signed:	James N. Jennings
Taken, su said county,	ubscribed and sworn to before me this 10 th day of	the uncersigned authority in my
My Commission	Notary Public	MOTAL Tenned
My Commission	S Ta Con A	Timission expires of I august 29, 1991

Although we are not requesting any variances at this time, we would like to reserve the right to request variances on a site-specific basis.

U. S. Gypsum Company will attempt to comply with all reclamation standards. However, for example, if the safety of the operator is in question in a particular working area, the company would like to be able to request a variance from the State for that specific site.

FORM MR-1 Page 12 of 13

# PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.

Only information relating to the <u>location</u>, size or nature of the depositmay be protected as confidential.

Confidential Information Enclosed: (X) Yes ( ) No

FORM MR-1 Page 13 of 13

#### MINE MAPS

- 1. Maps must be clear and legible contour maps or recent aerial photos. The scale should be 1 inch = 500 feet to adequately show topographic features.
- 2. Map sheets should be of a reasonable size, not to exceed 48 inches on a side.
- 3. Maps must have a title block with:
  - A. Map title.
  - Name and address of permittee. B.
  - C. Permit and amendment numbers.
  - D. Annual report period.
  - Scale, north arrow, contour interval, date of photography, etc. E.
- All maps must show:
  - A. Legal subdivisions.
  - В. Permit area boundary clearly shown and labelled.
  - C. Amendment areas clearly shown and labelled.
  - D. Contour features.
- 5. The following features should all be clearly identified:
  - Topsoil stockpiles (numbered and with volumes). A.
  - Settling ponds and sediment control structures. B.
  - C. Haul roads.
  - Pits identified by location, name, number, etc. D.
  - E. Ramps (numbered).
  - Out-of-pit spoil dumps. F.
  - All waste disposal sites including, but not limited to: G.
    - 1. Landfill sites.
    - Carbonaceous waste dumps.
  - Diversion ditches. H.
  - I. Monitoring sites.

14050